

REMARKS

The Office Action of April 14, 2006, has been carefully considered.

Claim 1 has now been amended to recite that the lower reflection film is provided on an upper surface of the circuit substrate and the resin layer is provided to encapsulate the LED and the lower reflection film. Further, the upper reflection layer is provided on an upper surface of the resin layer and the upper reflection layer is formed by a metal disposed opposite the LED and is formed into a thin film to transmit a portion of light rays emitted by the LED through the upper reflection layer in a forward direction and to reflect another portion of the light rays emitted by the LED. The light rays reflected by the upper reflection layer are further reflected by the lower reflection film on the circuit substrate, and the light rays reflected by the lower reflection film are discharged in the forward direction passing through the upper reflection layer and through side walls of the resin layer to be diffused. This amendment is clearly supported by Fig. 1 of the present specification, and by the text at page 4, lines 6-14.

Amended claim 1 thus discloses a simple structure including an upper reflection film which is capable of controlling the direction of the light.

Claim 1 has been rejected under 35 USC 102(e) as being anticipated by Lin, and claims 4-6 have been rejected under 35 USC 103(a) over Lin in view of Ohtsuki et al.

In the device of the Lin reference, a light generating unit 51 is mounted on a lower glass substrate 32 and encapsulated by a wavelength-converting member 4, on which is mounted an upper glass substrate 31. Upper and lower reflection units 6 are provided, but they are mounted above and below the glass substrates 31 and 32, and not on the upper

surface of the substrate 32. Thus, the wavelength-converting member does not encapsulate a reflection unit.

Moreover, a large number of intercepting members are provided between the upper and lower reflection units 6. These intercepting members are composed of, from the lower member shown in Fig. 2, multiple layers of the lower dielectric unit 61, the lower substrate 32, the wavelength converting member 4, upper substrate 31, and multiple layers of the upper dielectric unit 61.

The dielectric units 61 include at least three dielectric layers which are different from each other in refractive index and thickness (see paragraph [0027]), and the layers contain various materials discussed in paragraph [0029]. The wavelength-converting member 4 includes a transparent resin matrix with a fluorescent material, such as particles of a phosphor material, dispersed therein. Applicants submit that the total transparency of these members will be very low.

The light reflected by the upper reflection unit 6 must therefore penetrate a plurality of intercepting members, and hence the luminance of light is greatly reduced when the light returns to the upper reflection unit 6.

Thus, the structure of the upper reflection unit disclosed in Lin is quite complicated with multiple layers, and without a resin layer which encapsulates both a light generating device and a reflection film, and the light reflected by the lower reflection unit can hardly be discharged from the side walls of the wavelength converting member 4, the material of which is unknown.

Ohtsuki et al has been cited to show a transparent holding plate, as claimed in claim 4. This reference does not, however, cure the defects of the Lin reference as discussed above.

Withdrawal of these rejections is requested.

In view of the foregoing amendments and remarks,
Applicants submit that the present application is now in
condition for allowance. An early allowance of the
application with amended claims is earnestly solicited.

Respectfully submitted,



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